Date: Mon, 14 Feb 94 04:30:32 PST
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>
Errors-To: Ham-Homebrew-Errors@UCSD.Edu
Reply-To: Ham-Homebrew@UCSD.Edu
Precedence: Bulk
Subject: Ham-Homebrew Digest V94 #29
To: Ham-Homebrew

Ham-Homebrew Digest Mon, 14 Feb 94 Volume 94 : Issue 29

Today's Topics:

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

Date: Sat, 12 Feb 1994 06:25:25 GMT
From: convex!constellation!osuunx.ucc.okstate.edu!olesun!gcouger@uunet.uu.net
Subject: Computer controled Icom 735
To: ham-homebrew@ucsd.edu

I want to control my Icom 735 with an msdos computer. I have Phil Karn's
KA9q functions in C. But I can't find the first part of the 2 files to
see how he made his contctions from the printer port to the Icom.

Anybody know how this works????

Thanks
Gordon AB5Dg

Date: Sun, 13 Feb 1994 16:27:11 GMT
From: pagesat.net!pagesat.com!norman@decwrl.dec.com

Subject: DDS Anyone?
To: ham-homebrew@ucsd.edu

jjw@seastar.org (John Welch) writes:

>As quoted from <2jdr0r$84@unix.sri.com> by Eric_Shrader@qm.sri.com:

>> Does anyone have any experience building or playing with the DDS board
>> designed by VE3JIL and published in the August '93 issue of '73? It is a
>> parallel port controlled 0-16Mhz synthesizer. I am interested in using it
>> in a 432 Mhz receiver which requires a couple of frequency doublings and

The secret of the year seems to be the Analog Devices AD7008 DDS with on
chip DAC. This unit will provide 32 bit tuning resolution and a 10
bit DAC. Included are registers for AM an Phase modulation. All this
in a 44 pin plcc package.

Norman

--
     For information regarding Pagesat's Satellite delivered usenet news
     mail info request to "pagesat@pagesat.net" or call: 415-424-0384
     .. Delivering 45+ megabytes of Usenet news each day via satellite
          ==Now for software for Windows==18"receive Antenna =======

Date: Wed, 9 Feb 1994 14:21:27
From: ihnp4.ucsd.edu!sdd.hp.com!spool.mu.edu!howland.reston.ans.net!usc!
elroy.jpl.nasa.gov!jplpost.jpl.nasa.gov!jeffrey_p_wendt@network.ucsd.edu
Subject: Help...
To: ham-homebrew@ucsd.edu

I would like to modify my Micor radio (VHF) to act as a mobile inband repeater,
to extend the range of my HT's when out in the field. I know very little
about this type of modification, and any help re: circuits, duplexers, or just
another angle that I havn't thought of, would be a great help.

Thanks in advance,

JPW

Date: 13 Feb 94 20:24:11 GMT
From: news-mail-gateway@ucsd.edu
Subject: Power supply design questions (sort of long)
To: ham-homebrew@ucsd.edu

>In article <2jgo8t$17cu@msuinfo.cl.msu.edu> cravitma@cps.msu.edu (Matthew B Cravit) writes:

>   2) What are the values of C1, C2 and C3? (Capacitor type,
>   capacitance and voltage ratings)
>
Assuming C1 is your main filter cap, C2 is not needed as long as the regulator input is within a few inches of C1, which is probably true in your case. The purpose of C1 is not to provide "pure" DC, only to keep the voltage at the input to the regulator from going below the drop-out voltage of the regulator. For a standard 12-volt regulator, this voltage is typically spec'ed at 14.5 volts. C1 will be charged to a maximum of 14 * sqrt(2) - 2 * 0.7 = 18.2 volts every 1/120 of a second in the bridge rectifier configuration (Transformer peak voltage minus 2 diode drops). We need to choose C1 so that it will loose no more than (18.2 - 14.5) volts at your maximum current (1.5A ?). Using i = C * dv/dt, we get C1 = 1.5 * 1/120 / (18.2 - 14.5) = 3380 uF. A 3900 uF @ 25 volt aluminum electrolytic is the closest standard value, or you could use a bit bigger cap. for insurance against low line voltage, etc. Note that C1 is polarized.

C3 is a 0.1 ceramic.

The diode across the regulator is not necessary unless you have a large capacitance on the output of the regulator.

Mike, KK6GM

Date: Fri, 11 Feb 1994 05:29:46 GMT
From: mvb.saic.com!unogate!news.service.uci.edu!usc!sol.ctr.columbia.edu!news.kei.com!world!barnaby@network.ucsd.edu
Subject: Transceiver headset
To: ham-homebrew@ucsd.edu

henderdx@hamlet.uncg.edu (David Henderson) writes:

>I have a question that is possibly a little out of place here in your
>news group, but for lack of a better place to post...

>I'm not a HAM-ster, but I'd like to build a headset
>(Microphone/earphones) w/ a built in transmitter reciever for use w/ my
>computer. I'd like it as compact as possible. i.e. all in the head set
>wo/ a battery pack.
David,

I didn't build one of these, but did "hook together" some parts for a
similar project. I wanted to have hands free operation at my computer
while talking on the phone. I tried all headsets I could find (Hello
Direct, Plantronics, etc, etc) but was disappointed with the quality, and
needed more noise cancellation (I enjoy being in my own world).
I finally got a Peltor Helicopter Headset hooked it up to a small
amplifier (from Plantronics) and a small impedence match for the
microphone, and I am happy! Not to mention 27dB noise reduction!
I look like "geek-of-the-week" at my desk, but hey!
Barnaby barnaby@world.std.com (AA1IB)

Date: Fri, 11 Feb 1994 23:15:33 GMT
From: netcon!bongo!netcomsv!netcom.com!greg@locus.ucla.edu
To: ham-homebrew@ucsd.edu

References <gregCKK64q.DGC@netcom.com>, <CKvBKr.HMn@hpcvsnz.cv.hp.com>,
<2jev6l$mak@usenet.INS.CWRU.Edu>
Subject : Re: Varactor tuned VFOs

In article <2jev6l$mak@usenet.INS.CWRU.Edu> trier@odin.ins.cwru.edu (Stephen C.
Trier) writes:
>In article <CKvBKr.HMn@hpcvsnz.cv.hp.com>, Tom Bruhns <tomb@lsid.hp.com> wrote:
>>Continuing the example, 4 bits of count could correct
>>+/- 70Hz each 1/10 second, and if you feed the correction
>>into an integrator, it will track.
>
>Neat! One of those Microchip PICs could do the job nicely, replacing
>the adder and 10 Hz reference. (Software timing loops could do the
>job.)
>
>Are there any other clever ways to reduce this scheme to fewer off-the-
>shelf components?
>
Precisely what I was getting at in starting this thread. One thing that
drives me bonkers about so many QRP designs is the XTAL control. A good,
versatile, inexpensive VFO would be a godsend. I'm an experienced
QRP type, but have rarely been rock-bound (Argonaut, you know), and
I think I find crystal control a lot more limiting than low power.

However, the field of simple VFOs seems a bit neglected by the
simple circuit gods.

I thought towards varacter tuning because they, and 10-turn pots, are
a lot more obtainable than decent variable caps.

Greg

Date: 14 Feb 1994 00:19:51 GMT
From: swrinde!cs.utexas.edu!math.ohio-state.edu!magnus.acs.ohio-state.edu!
usenet.ins.cwru.edu!odin!trier@network.ucsd.edu
To: ham-homebrew@ucsd.edu

References <CKvBKr.HMn@hpcvsnz.cv.hp.com>, <2jev6l$mak@usenet.INS.CWRU.Edu>,
<gregCL31xy.223@netcom.com>
Subject : Re: Varactor tuned VFOs

In article <gregCL31xy.223@netcom.com>, Greg Bullough <greg@netcom.com> wrote:
>However, the field of simple VFOs seems a bit neglected by the
>simple circuit gods.

Doug DeMaw's W1FB Notebook series has a number of VFOs meant to be
dropped into crystal QRP designs. In fact, most of the radio designs
in his books ellide the oscillator(s). That's an invitation to
mix-and-match with a VFO if I ever saw one.

The most polished VFOs in his books are all based on air-variables
capacitors. He has a few sample schematics for varactor versions, but
no PC board layouts.

One thought I had: The problem with varactor stability is changes in
capacitance as the temperature changes. What if one used an oven to
stabilize the temperature? Is this practical? (Now someone will tell
me HP and/or Motorola have been doing this for 25 years... ;-)

      Stephen

--
Stephen Trier KB8PWA/AA   Dave: [H]as anyone ever met a Zamboni driver?
Other: trier@ins.cwru.edu   Mike: The next version of OS/2 will include a
Home: sct@po.cwru.edu   Zamboni driver. Let's see Microsoft top that!
                                  (dave@cs.arizona.edu & miked@vnet.ibm.com)

Date: Mon, 14 Feb 1994 05:43:02 GMT
From: news.cerf.net!pagesat.net!pagesat.com!norman@network.ucsd.edu
To: ham-homebrew@ucsd.edu

References <2jdr0r$84@unix.sri.com>, <CL2Ezn.24B@seastar.org>,
<norman.761156831@pagesat.com>¸ë
Subject : Re: DDS Anyone?

Oh I forgot to mention that the AD7008 DDS chip costs $25.00 in small Qty's.
The upper freq limit is 20Mhz or 25 Mhz depending upon grade.
Norman

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End of Ham-Homebrew Digest V94 #29
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